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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,344

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Yuichiro Ohta

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EXAMINER

LUND, JEFFRIE ROBERT

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

07/22/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/796,344

**Applicant(s)**

OHTA, YUICHIRO

**Examiner**

Jeffrie R. Lund

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 22-26 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 12 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 22 and 26 is objected to because of the following informalities: in line 6 of claim 1 "vacuum." should read --vacuum--; and in line 5 of claim 26 "On" should be --on--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 22-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose a "vibration transmission suppressing mechanism".

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 22-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites the limitation "a vibration transmission suppressing mechanism". It is not clear what the term "vibration transmission suppressing mechanism" is or what structure it entails.

Applicant appears to be invoking 112 6<sup>th</sup> paragraph. If this is correct, then, the claim element "a vibration transmission suppressing mechanism" is a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, it is unclear whether the claim element is a means plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, because the claim does not include the term "means for"

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to:

- (a) Amend the claim to include the phrase "means for" or "step for" in accordance with these guidelines: the phrase "means for" or "step for" must be modified by functional language and the phrase must **not** be modified by sufficient structure, material, or acts for performing the claimed function; or
- (b) Show that the claim limitation is written as a function to be performed and the claim **does not** recite sufficient structure, material, or acts for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. For more information, see MPEP 2181.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicants Admitted Prior Art (AAPA) in view of Watanabe, JP 57-116947.

The AAPA discloses vacuum bonding chamber 16 for bonding liquid crystal display devices that include: a floor panel 50; a vacuum chamber 16 provided on the floor panel; a couple of vacuum pumps 18 provided on the floor panel and aligned parallel to each other with a gap therebetween; a pipe 30 connecting the vacuum chamber to each of the vacuum pumps for evacuating the vacuum chamber; and a flexible pipe 36 included in a part of the pipe; an inlet pipe 32, provided on the top part, vacuum chamber side of the pumps, included in a part of the pipe for connecting the flexible pipe to each of the corresponding vacuum pumps. (Specification and Figures)

The AAPA differs from the present invention in that AAPA does not teach: a fixing block provided on the floor panel; a vibration transmission suppressing mechanism for maintaining a distance between the inlet pipe and the fixing block in an extending direction of the flexible pipe so as not to shrink the flexible pipe at a time of evacuation, wherein and the vibration transmission suppressing mechanism is provided between the vacuum pumps.

Watanabe teaches a vibration transmission suppressing mechanism 9 for maintaining a distance between the inlet pipe and a fixing block (9a-2, 9b-2) in an extending direction of the flexible pipe so as not to shrink the flexible pipe at a time of evacuation for maintaining a distance between the inlet pipe and fixing block. (Abstract and figures)

The motivation for adding the vibration transmission suppressing mechanism of Watanabe to the apparatus of AAPA is to prevent vibration transmission to the vacuum chamber caused by the movement of the vacuum pump along the extending direction of the flexible pipe. Furthermore, it has been held that applying a known technique to a known device ready for improvement to yield predictable results is obvious (see *KSR International Co. v. Teleflex Inc.*).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the vibration transmission suppressing mechanism of Watanabe to the apparatus of the AAPA.

8. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicants Admitted Prior Art (AAPA) in view of Sekiguchi et al, JP 61-008479, and Elliotte JP 57-116947.

The AAPA discloses vacuum bonding chamber 16 for bonding liquid crystal display devices that include: a floor panel 50; a vacuum chamber 16 provided on the floor panel; a couple of vacuum pumps 18 provided on the floor panel and aligned parallel to each other with a gap therebetween; a pipe 30 connecting the vacuum chamber to each of the vacuum pumps for evacuating the vacuum chamber; and a flexible pipe 36 included in a part of the pipe; an inlet pipe 32, provided on the top part, vacuum chamber side of the pumps, included in a part of the pipe for connecting the flexible pipe to each of the corresponding vacuum pumps. (Specification and Figures)

The AAPA differs from the present invention in that AAPA does not teach: a fixing block provided on the floor panel; a vibration transmission suppressing

mechanism for maintaining a distance between the inlet pipe and the fixing block in an extending direction of the flexible pipe so as not to shrink the flexible pipe at a time of evacuation; and the vibration transmission suppressing mechanism is: a chain block provided between the vacuum pumps and parallel to and on an opposite side of each of the inlet pipes with respect to the vacuum pump; includes a quadrangular bar fixed to each of a rising portion of the inlet pipes and a chain block fixed to a central part of the quadrangular bar.

Sekiguchi et al teaches that vacuum bellows 26 in an exhaust line 27 between a vacuum pump 28 and a vacuum chamber 11 contracts under vacuum pressure, and that a chain 35 can be used to prevent movement of bellows in a direction away from the chain.

Elliott teaches preventing the movement of a flexible hose 59 with a quadrangular bar 43 supporting load elements 41 with a chain 103 attached to fixing blocks (one block 104 attaches the chain 103 to the bar 43 and a second block (not number) attaches the second end to a support 102). The chain is provided between the load elements and parallel to and on an opposite side of each end of the load elements. (Figure 1 and 2)

The motivation for adding the quadrangular bar, chain, and blocks of Elliott between and parallel to the vacuum pumps of the apparatus of AAPA is to prevent the bellows from contracting and moving the vacuum pumps as taught by Sekiguchi et al and Elliott. Furthermore, it has been held that applying a known technique to a known device ready for improvement to yield predictable results is obvious (see KSR

*International Co. v. Teleflex Inc.*).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the quadrangular bar, chain, and blocks of Elliotte to prevent the bellows from moving in the apparatus of the AAPA as taught by Sekiguchi et al.

### ***Response to Arguments***

9. Applicant's arguments filed March 23, 2009 have been fully considered but they are not persuasive.

In regard to the argument that both Watanabe et al and Sekiguchi et al both teach preventing motion in a vertical direction, while the AAPA teaches flexible pipes in a horizontal direction, and thus there is no teaching to combine, the Examiner disagrees. Both Watanabe et al and Sekiguchi et al teach preventing shrinkage along the extending direction of the pipe. Thus, one of ordinary skill in the art would apply the teaching of Watanabe et al and Sekiguchi et al along the length of the extending direction of the pipe.

In regard to the argument that Watanabe et al and Sekiguchi et al would shrink, the Examiner disagrees. Watanabe et al and Sekiguchi et al flexes and changes shape. This is not the same as shrinking. The distance between the wall 2 and the points 9a, 9b (in Watanabe) and the length of chain (in Sekiguchi et al) on the support do not change, thus there is no shrinkage.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the



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examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Thursday (10:00 am - 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jeffrie R. Lund/  
Primary Examiner  
Art Unit 1792

JRL  
7/20/09